

CALCULATED AND DRAWN BY TBG 10/30/07

DR 70

PIPE T.E. < 5'
 AREA (FROM CADD) = 42.05 SF * 3'-6" = 151.38 CF/27 = 5.61 CY

DS 70

STRUCTURE T.E. < 5'
 $(4.14 + 4.24) / 2 * \text{PI} (3.42')^2 = 153.96 \text{ CF/27} = 5.70 \text{ CY}$

DR 70 GRANULAR BACKFILL

$(3.6' * .8' * 18.0') - [(PI (.8')^2 / 2) * 18.0'] = 12.91 \text{ CF/27} = 0.48 \text{ CY}$
 USED 22.33 LF OF 18" CPEP = 1.39 CY

pay 24 LF ✓

DR 71

PIPE T.E. < 5'
 AREA (FROM CADD) = 83.15 SF * 3'-6" = 299.35 CF/27 = 11.09 CY

DS 71

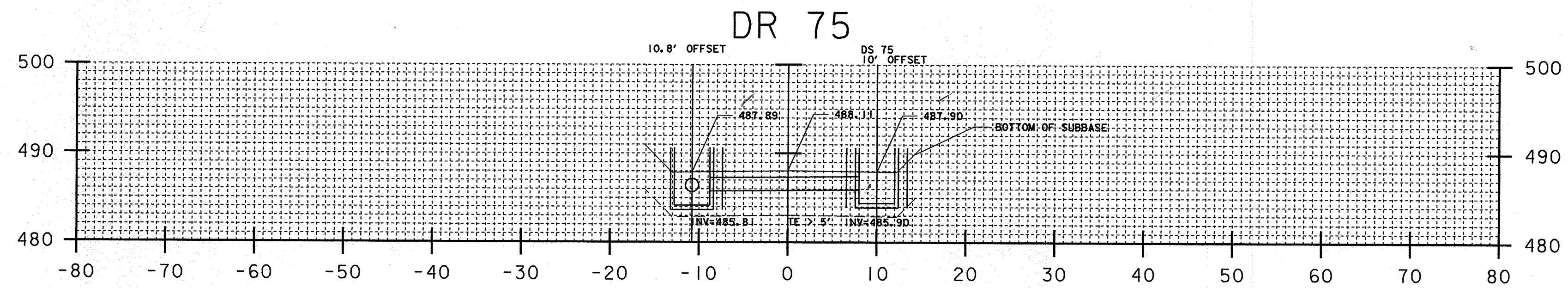
STRUCTURE T.E. < 5'
 $5' * \text{PI} (3.42')^2 = 183.73 \text{ CF/27} = 6.80 \text{ CY}$

STRUCTURE T.E. > 5'

$1.5' (10.53' + .73') / 2 * \text{PI} (3.42')^2 = 42.99 \text{ CF/27} = 1.59 \text{ CY}$
 TOT = 8.39 CY

DR 71 GRANULAR BACKFILL (UPDATED 1/4/08)

$(3.6' * .8' * 22.5') - [(PI (.8')^2 / 2) * 22.5'] = 42.18 \text{ CF/27} = 1.56 \text{ CY}$
 USED 24.00 LF OF 18" CPEP = 1.74 CY



CALCULATED AND DRAWN BY TBG 10/26/07

DR 75

PIPE T.E. < 5'
 AREA (FROM CADD) = 30.29 SF * 3'-6" = 109.04 CF/27 = 4.04 CY

DS 75

STRUCTURE T.E. < 5'
 $(4.05 + 5.00) / 2 * \text{PI} (3.42')^2 = 166.27 \text{ CF/27} = 6.16 \text{ CY}$

DR 75 GRANULAR BACKFILL

$(3.6' * .8' * 16.0') - [(PI (.8')^2 / 2) * 16.0'] = 30.00 \text{ CF/27} = 1.11 \text{ CY}$ (UPDATED 1/4/08)
 USED 18.00 LF OF 18" CPEP = 1.24 CY

PROJECT NAME: HARTFORD
 PROJECT NUMBER: RS 0113(40)

FILE NAME: \$\$\$FILENAME\$\$\$ PLOT DATE: 04-JAN-2008
 PROJECT LEADER: KEN UPMAL DRAWN BY: E. ATKINS
 DESIGNED BY: K. ISHIKURA CHECKED BY: K. ISHIKURA
 E. ATKINS SHEET 235 OF 239